



DOE/EFCOG Chemical Management 2001 Workshop

“EFCOG and Chemical Safety Analysis Evolution”

October 2001





EFCOG Working Groups

- ◎ Acquisition Management
- ◎ Energy Efficiency
- ◎ Engineering Standards
- ◎ Information Management
- ◎ Price-Anderson
- ◎ Safety Analysis
- ◎ Integrated Safety Management
- ◎ Maintenance





EFCOG Member Companies

- ⊙ Bechtel BWXT Idaho, LLC
- ⊙ Bechtel Hanford / Bechtel SAIC
- ⊙ Bechtel Nevada
- ⊙ BNFL, Inc.
- ⊙ Brookhaven Science Associates
- ⊙ BWXT Pantex
- ⊙ BWXT Services, Inc.
- ⊙ BWXT-Y12
- ⊙ CH2M HILL Hanford Group
- ⊙ Duke Engineering & Services
- ⊙ DynCorp
- ⊙ EG&G Inc.
- ⊙ Fluor Federal Services
- ⊙ Fluor Fernald
- ⊙ Fluor Hanford
- ⊙ Foster Wheeler Environmental
- ⊙ Honeywell International Inc.
- ⊙ Johnson Controls
- ⊙ Kaiser-Hill Company
- ⊙ Lockheed Martin ISS (LMTS)
- ⊙ Midwest Research Institute (NREL)
- ⊙ Numatec Hanford Corporation
- ⊙ Pacific Northwest Laboratory
- ⊙ Sandia National Laboratories
- ⊙ Science Applications International
- ⊙ TRW
- ⊙ UC / Lawrence Berkeley Laboratory
- ⊙ UC / Lawrence Livermore Laboratory
- ⊙ UC / Los Alamos National Laboratory
- ⊙ UT-Battelle (ORNL)
- ⊙ Washington Group International
- ⊙ Westinghouse Savannah River
- ⊙ Westinghouse TRU Solutions (WIPP)



SAWG Chemical Related Activities

- Chemical Safety Subgroup - 1992
- Chemical Safety Workshops 4 (of 19)
- Chemical Papers 214 (of 1060)
- Major Chemical Guidance 4 (of 27)
- Chemical Safety Training 69 (of 234)
- Teaming with CSTC





Chemical Safety Subgroup - 1992

- New Orders Issued
 - 5480.21, .22, .23
- Chemical Management Initiated
 - Inventory and Worker Safety
- Chemical Hazards Analysis Evolving
 - Inventory vs. Consequence





Subgroup Products

- **Non-radiological Hazardous Materials Safety Analysis Subgroup guidance developed for analysis of chemical exposures**
- **Toxic Chemical Hazard Classification and Risk Acceptance Guidelines for use in DOE Facilities**





- **A Limit Hierarchy (what parameters can be used when the primary criteria are not available).**
- **Health effects associated with Primary Criteria**
- **Chemical consequence evaluation precision**





- Differences between chemical and radiological risk guidelines and consequence calculations
- Recommended methodology for analysis of exposures to mixtures of materials accidentally released from DOE Facilities
- Handling the combined consequences of chemicals or the combination of chemicals and radionuclides
- Methods for toxicological consequence analysis for hazard classification/categorization and safety analysis





Where are we going? Management and hazards analysis of chemicals have evolved significantly.

- Coordination of chemical management and hazards analysis
- Chemical hazards analysis guidance and training
- SAWG support and participation

